

The Low  
Water Line  
Series of...

# PACIFIC STEEL HEATING BOILERS

Manufactured by  
**PACIFIC STEEL BOILER DIVISION**  
GENERAL OFFICES: DETROIT, MICH.

Factories: Waukegan, Ill.; Bristol, Pa.  
Sales Branches in 58 Cities

*UNITED STATES RADIATOR CORPORATION*  
DETROIT, MICHIGAN



*smokeless  
direct draft  
oil fired*

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New York Sales Office  
370 Lexington Ave.  
New York 17, N.Y.  
Telephone: MU 2-1100

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## LOW WATER LINE STEEL BOILERS *with genuine low operating costs . .*

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**H**ere are boilers that meet the definite need for low water line construction, without sacrifice of any of the essential points of design which have won fame as fuel savers for the regular line of Pacific Steel Boilers.

The three essentials for full heating efficiency and consequent low operating costs are:

1. Ample heating surface, which makes it needless to force the boiler.
2. Large combustion chamber, to insure maxi-

mum combustion of the fuel before the volatile gases reach the tubes.

3. Long fire travel, to get every lingering heat unit out of the fuel and gases and into the water.

The Low Water Line Series of Pacific Steel Boilers have all of these, just as they are possessed by all other Pacific Boilers. A comparison of heating surface, combustion space, and fire travel with boilers of other makes will be found highly interesting and illuminating.



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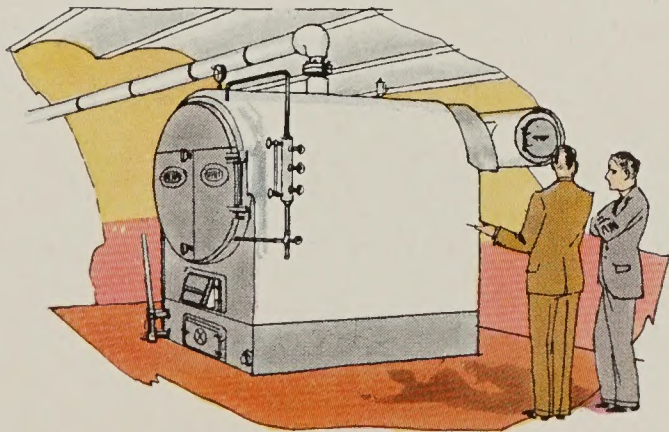
## Backed by 18 years of building welded steel boilers . . .

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**T**he Low Water Line Series has the same design and construction as the original Pacific, with the exception of the smaller tubes. Just as in the regular line of Pacific Boilers, you will find advanced engineering made possible by the 18 years of Pacific experience in building welded steel boilers; the strong and almost indestructible construction given only by welded steel; the improvement of every detail with an eye to efficiency, fuel saving, long life, ease of installation and tending.

The firebox is a water leg, the full length and width of the shell, providing a wall of water entirely around the furnace. The lower half of the shell lies directly over the fuel bed; which with the vertical wall of water in the firebox absorbs the radiant heat from the fuel and burning gases. Every seam and joint, all staybolts and braces, are electrically welded. They are leakproof with-



out caulking. They stand up against strains of expansion and contraction without the slightest difficulty. The efficiency of any boiler depends on the amount of heat generated in the furnace and the proportion of that heat transmitted to the water. The Pacific's design, with its ample combustion space and fire travel, insures maximum efficiency in burning the fixed carbon, gases, and volatile content of the fuel and transmission of the greatest portion of the heat thus generated to the water.

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## Forced Circulation

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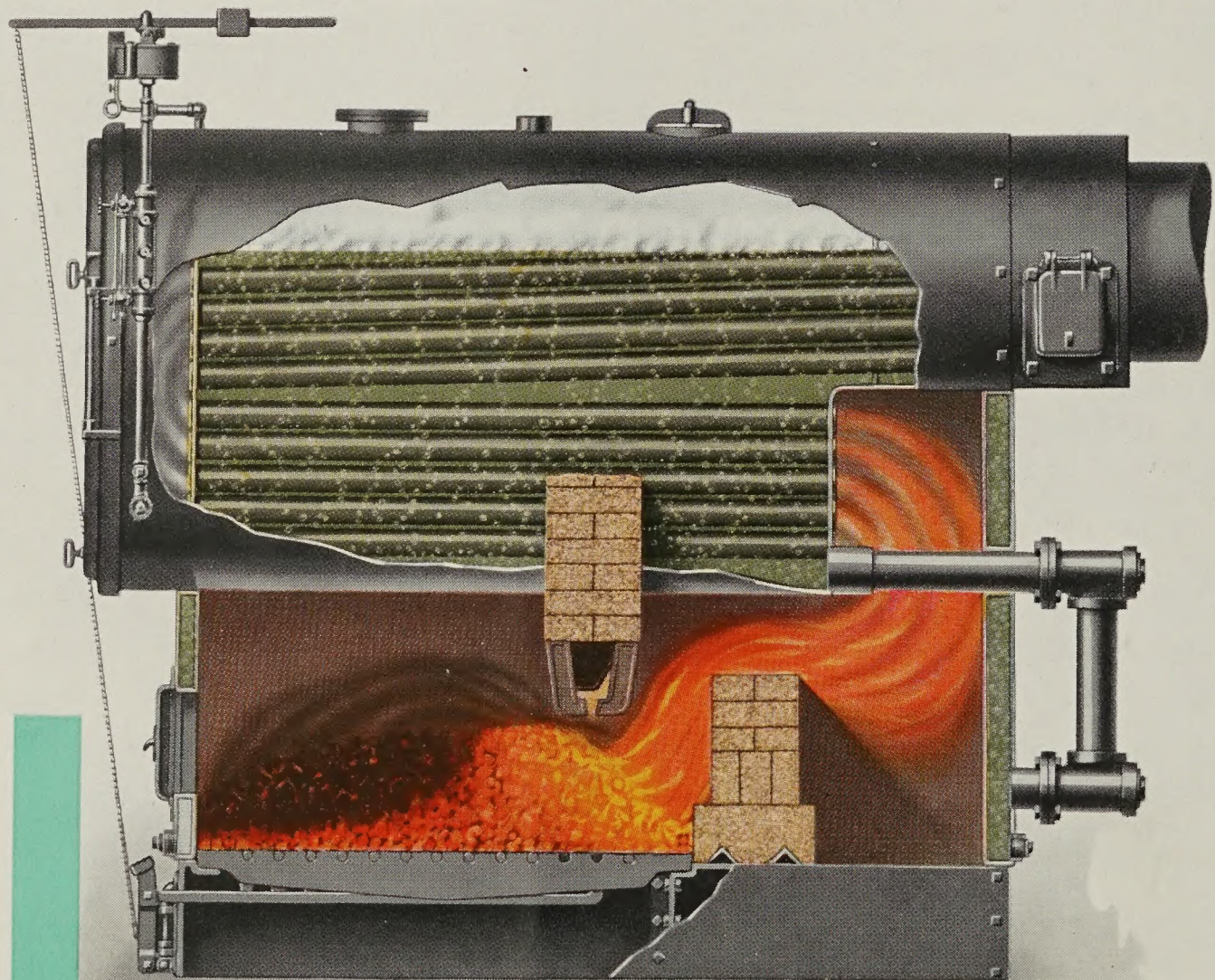
**F**orced circulation in Pacific Boilers is an exclusive feature not found in any other low pressure steel heating boiler. Making use of the same principle used in the best high pressure water tube boilers, the Pacific design restricts the passage of water between firebox and shell, creating a forced circulation which sweeps the tube and shell heating surfaces free of steam bubbles. Thus, maximum heat absorption is permitted. Each boiler is built in strict accordance with the American Society of Mechanical Engineers Boiler Code. Specifications of the kind and thickness of plates, requirements of construction throughout, as laid down by this code, are used as minimums. Each boiler is built and tested under the direct supervision of inspectors stationed in our plants by one of the largest American insurance companies.



## EVEN WITH "MINE RUN" SOFT COAL anti-smoke ordinances are not violated

With a Pacific Arch Type Smokeless Boiler in your building, you need never worry about protests from the city smoke inspector. For these boilers are truly smokeless. Smoke-free operation is assured with all grades of "run of mine" bituminous coal, with ordinary attention. The low water line series in the arch type style embodies the recent improvements which make Pacific Arch Type Boilers even more efficient and satisfactory than ever. Consumption of all volatile gases is made certain . . . the boilers literally burning their own smoke . . . by introducing a controlled amount of preheated air and compelling an intimate mixture of this air with the gases—then insuring contact with the incandescent fuel bed, burning all smoke. The smokeless furnace is completely built in at the factory. The bridge wall is also built in at the factory.

*Pacific Smokeless  
Boiler for burning  
soft coal smokelessly*





# PACIFIC ARCH TYPE SMOKELESS BOILERS

*for burning soft coal smokelessly*

A.S.M.E. STANDARDS ARE USED AS MINIMUMS—*SHELL and FIREBOX*: Flange quality steel plate. *STEAM TRIMMINGS*: Consist of steam gauge with siphon and cock, water column with trimmings, damper regulator, and safety valve. *FIRING TOOLS*: Hoe, poker, slice bar, and steel tube scraper. *SMOKE CONNECTION*: Horizontal at rear of shell. *MAXIMUM WORKING PRESSURES*: Steam fifteen (15) pounds, water thirty (30) pounds. *INSPECTION*: All Pacific Boilers are built, inspected, and tested under supervision of the Maryland Casualty Company.

## Steam Specifications

Catalog Number	*SHBI Rating	Code Word	Shipping Weight Approx. Lbs.	Asbestos To Cover Sq. Ft.	Height Water Line Inches	One Boiler		Two Boilers		Grate Area Sq. Ft.	Heating Surface Sq. Ft.	Size Outlet Inches	Size Return Inches
						Diameter Stack Inches	Height Stack Feet	Diameter Stack Inches	Height Stack Feet				
6291	2340	Dab	4150	73	59 $\frac{1}{2}$	13	55	18	60	9.3	167	5	3
6292	2600	Dace	4400	79	59 $\frac{1}{2}$	13	55	18	60	10.1	186	5	3
6293	2860	Dad	4650	85	59 $\frac{1}{2}$	13	60	18	65	10.9	204	5	3
6294	3110	Dago	4850	91	59 $\frac{1}{2}$	13	60	18	65	10.9	222	5	3
6295	3370	Daily	5200	97	59 $\frac{1}{2}$	13	60	18	65	11.8	241	5	3
6331	3630	Dairy	5250	76	68 $\frac{1}{2}$	16	60	21	65	12.5	259	6	3
6332	4350	Daisy	5750	89	68 $\frac{1}{2}$	16	65	21	70	13.5	311	6	3
6333	5080	Dale	6400	102	68 $\frac{1}{2}$	16	70	21	75	15.4	363	6	3
6334	5810	Dally	7000	115	68 $\frac{1}{2}$	16	70	21	75	16.3	415	6	3
6401	6520	Dame	7450	123	68	17	70	23	80	18.2	466	6	3
6402	6940	Damp	7850	129	68	17	75	23	85	18.2	496	6	3
6471	7880	Dance	8800	128	78	21	70	30	80	19.5	563	8	4
6472	8460	Dandy	9250	136	78	21	75	30	85	21.3	604	8	4
6473	9040	Dank	9600	143	78	21	75	30	85	21.3	646	8	4
6474	9620	Dare	10000	151	78	21	80	30	90	22.6	687	8	4
6521	10420	Dark	11450	167	82	23	80	32	90	23.4	744	8	4
6522	11820	Darn	12350	183	82	23	85	32	95	24.9	844	8	4
6523	12520	Dart	12750	191	82	23	90	32	100	26.4	894	8	4
6600	14110	Dash	14100	176	90	29	85	40	95	28.7	1008	8	4
6601	16020	Date	15250	194	90	29	90	40	100	30.4	1144	8	4
6602	16970	Daub	15700	203	90	29	90	40	100	30.4	1212	8	4
6603	18870	Davit	16800	221	90	29	95	40	105	32.2	1348	8	4
6671	20540	Daw	19000	230	98 $\frac{1}{2}$	31	95	43	105	34.0	1467	8	4
6672	22780	Dawn	20200	250	98 $\frac{1}{2}$	31	100	43	110	35.9	1627	10	5
6673	25000	Day	21400	270	98 $\frac{1}{2}$	31	110	43	120	37.8	1786	10	5
6674	27230	Daze	22700	290	98 $\frac{1}{2}$	31	115	43	125	39.6	1945	10	5
6751	29020	Deal	24600	263	106	35	105	48	115	40.5	2073	10	5
6752	31890	Dean	26000	285	106	35	110	48	125	42.6	2278	12	6
6753	34750	Dear	27500	306	106	35	120	48	135	44.6	2482	12	6

Sizes larger than shown are built for Stoker and Oil Firing

\*These ratings conform with the Steel Heating Boiler Institute Code for Rating Low Pressure Heating Boilers and are based on heating surface and grate area. Any Pacific Boiler will carry its full rated load in equivalent direct radiation. All forms of load, including piping and maximum hot water heating loads, must be reduced to equivalent direct radiation and included with the actual radiation load before selecting boiler sizes.

For hot water boilers figure ratings 60% greater than corresponding steam boiler ratings. On hot water boilers two outlets and two returns the same size as the corresponding steam boiler outlet are furnished.

Arch type smokeless boilers are furnished with smokeless furnace and bridge wall built in at the factory. Grates are assembled and crated in place in the base. Single section grates are furnished in boilers up to the No. 6334 size. Double section grates are furnished in larger sizes. Boilers up to the No. 6523 are furnished with one fire door and one ash door, larger boilers with two fire doors and two ash doors.



# ECONOMICAL OPERATION

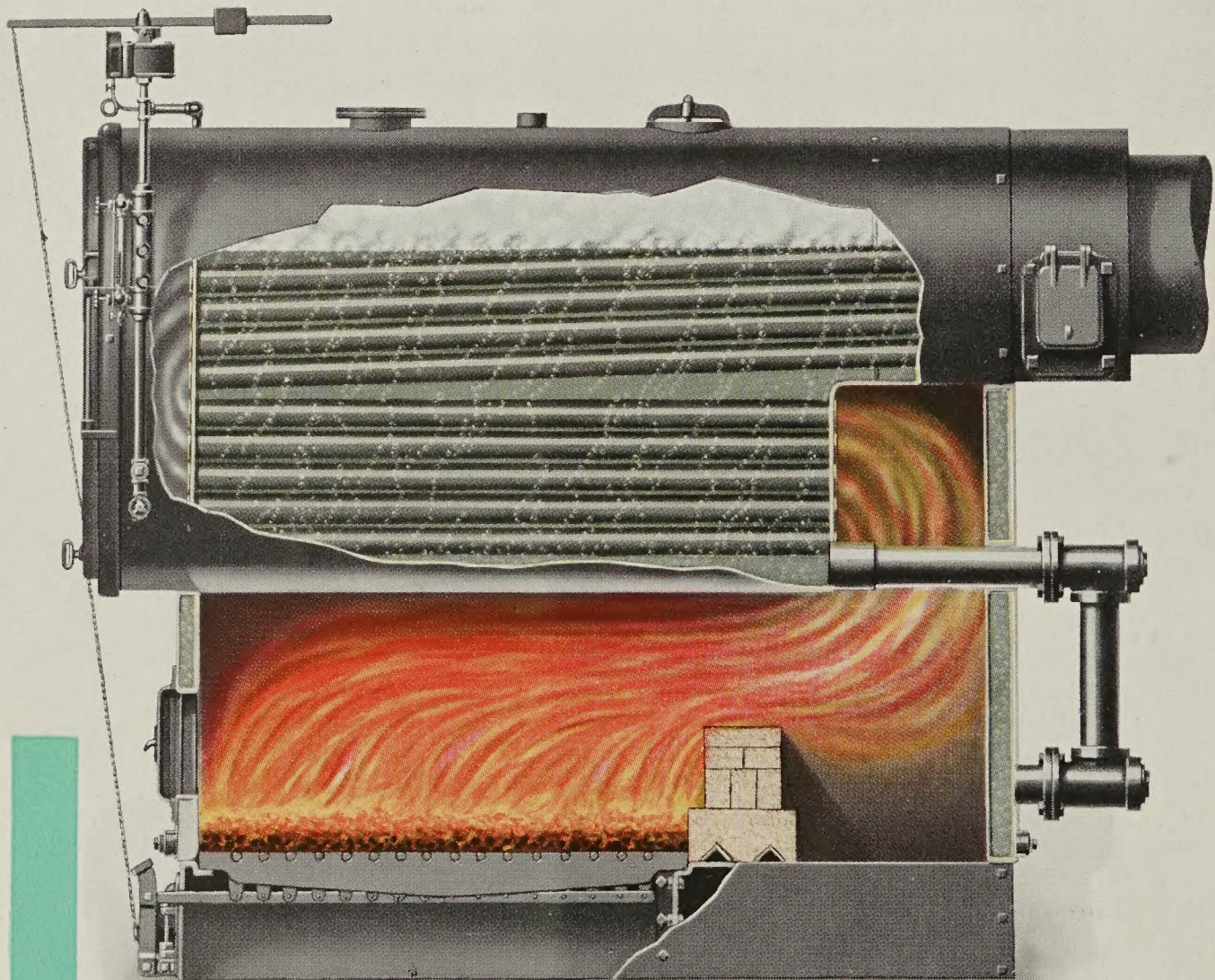
*from large direct heating surface*

**P**acific Direct Draft boilers are economical in operation because they have been designed to get the fullest value out of every ounce of the fuel.

The Pacific firebox extends the full length of the shell providing a large combustion chamber in which the gases and volatile contents of the fuel, usually lost up the stack, are completely burned.

From the firebox the hot gases are deflected

forward through the lower bank of tubes and then returned through the upper tubes so that the fire travel in Pacific boilers is practically three times the length of the boiler, giving every opportunity to absorb the greatest portion of the heat that is being generated. They are shipped complete with the bridge wall built in place in the firebox and the grates assembled and crated in place in the base.



Pacific Direct Draft  
Boiler for burning  
soft or hard coal



# PACIFIC DIRECT DRAFT BOILERS

*for use with any solid fuel*

A.S.M.E. STANDARDS ARE USED AS MINIMUMS — *SHELL and FIREBOX*: Flange quality steel plate. *STEAM TRIMMINGS*: Consist of steam gauge with siphon and cock, water column with trimmings, damper regulator, and safety valve. *FIRING TOOLS*: Hoe, poker, slice bar, and steel tube scraper. *SMOKE CONNECTION*: Horizontal at rear of shell. *MAXIMUM WORKING PRESSURES*: Steam fifteen (15) pounds, water thirty (30) pounds. *INSPECTION*: All Pacific Boilers are built, inspected, and tested under supervision of the Maryland Casualty Company.

## Steam Specifications

Catalog Number	*SHBI Rating	Code Word	Shipping Weight Approx. Lbs.	Asbestos To Cover Sq. Ft.	Height Water Line Inches	One Boiler		Two Boilers		Grate Area Sq. Ft.	Heating Surface Sq. Ft.	Size Outlet Inches	Size Return Inches
						Diameter Stack Inches	Height Stack Feet	Diameter Stack Inches	Height Stack Feet				
2261	1360	Fear	2250	54	53 <sup>3</sup> / <sub>4</sub>	12	45			6.9	97	4	4
2262	1550	Feast	2500	60	53 <sup>3</sup> / <sub>4</sub>	12	45			8.0	111	4	4
2263	1720	Feat	2650	65	53 <sup>3</sup> / <sub>4</sub>	12	50			8.0	123	4	4
2264	2100	Fed	3050	76	53 <sup>3</sup> / <sub>4</sub>	12	55			9.1	150	4	2
2291	2340	Fee	3850	73	59 <sup>1</sup> / <sub>2</sub>	13	55	18	60	9.3	167	5	3
2292	2600	Feel	4100	79	59 <sup>1</sup> / <sub>2</sub>	13	55	18	60	10.1	186	5	3
2293	2860	Fell	4350	85	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65	10.9	204	5	3
2294	3110	Felon	4550	91	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65	10.9	222	5	3
2295	3370	Fen	4800	97	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65	11.8	241	5	3
2331	3630	Fence	4900	76	68 <sup>1</sup> / <sub>2</sub>	16	60	21	65	12.5	259	6	3
2332	4350	Fend	5450	89	68 <sup>1</sup> / <sub>2</sub>	16	65	21	70	13.5	311	6	3
2333	5080	Fern	6100	102	68 <sup>1</sup> / <sub>2</sub>	16	70	21	75	15.4	363	6	3
2334	5810	Ferro	6700	115	68 <sup>1</sup> / <sub>2</sub>	16	70	21	75	16.3	415	6	3
2401	6520	Ferry	7100	123	68	17	70	23	80	18.2	466	6	3
2402	6940	Fetch	7500	129	68	17	75	23	85	18.2	496	6	3
2471	7880	Fete	8400	128	78	21	70	30	80	19.5	563	8	4
2472	8460	Feud	8850	136	78	21	75	30	85	21.3	604	8	4
2473	9040	Fever	9200	143	78	21	75	30	85	21.3	646	8	4
2474	9620	Fez	9600	151	78	21	80	30	90	22.6	687	8	4
2521	10420	Fiat	10950	167	82	23	80	32	90	23.4	744	8	4
2522	11820	Fiber	11850	183	82	23	85	32	95	24.9	844	8	4
2523	12520	Field	12250	191	82	23	90	32	100	26.4	894	8	4
2600	14110	Fife	13400	176	90	29	85	40	95	28.7	1008	8	4
2601	16020	Fig	14550	194	90	29	90	40	100	30.4	1144	8	4
2602	16970	File	15000	203	90	29	90	40	100	30.4	1212	8	4
2603	18870	Filly	16100	221	90	29	95	40	105	32.2	1348	8	4
2671	20540	Film	18200	230	98 <sup>1</sup> / <sub>2</sub>	31	95	43	105	34.0	1467	8	4
2672	22780	Fin	19400	250	98 <sup>1</sup> / <sub>2</sub>	31	100	43	110	35.9	1627	10	5
2673	25000	Fir	20600	270	98 <sup>1</sup> / <sub>2</sub>	31	110	43	120	37.8	1786	10	5
2674	27230	Fire	21900	290	98 <sup>1</sup> / <sub>2</sub>	31	115	43	125	39.6	1945	10	5
2751	29020	Firm	23600	263	106	35	105	48	115	40.5	2073	10	5
2752	31890	First	25000	285	106	35	110	48	125	42.6	2278	12	6
2753	34750	Fish	26500	306	106	35	120	48	135	44.6	2482	12	6

Sizes larger than shown are built for Stoker and Oil Firing

\*These ratings conform with the Steel Heating Boiler Institute Code for Rating Low Pressure Heating Boilers and are based on heating surface and grate area. Any Pacific Boiler will carry its full rated load in equivalent direct radiation. All forms of load including piping and maximum hot water heating loads, must be reduced to equivalent direct radiation and included with the actual radiation load before selecting boiler sizes.

For hot water boilers figure ratings 60% greater than corresponding steam boiler ratings. On hot water boilers two outlets and two returns the same size as the corresponding steam boiler outlet are furnished.

Direct draft boilers are furnished with bridge walls built in at the factory except in boilers in which the grates extend to the rear of the firebox. Grates are assembled and erected in place in the bases. Single section grates are furnished in boilers up to the No. 2334 size. Double section grates are furnished in larger sizes. Boilers up to the No. 2523 are furnished with one fire door and one ash door, larger boilers with two fire doors and two ash doors.

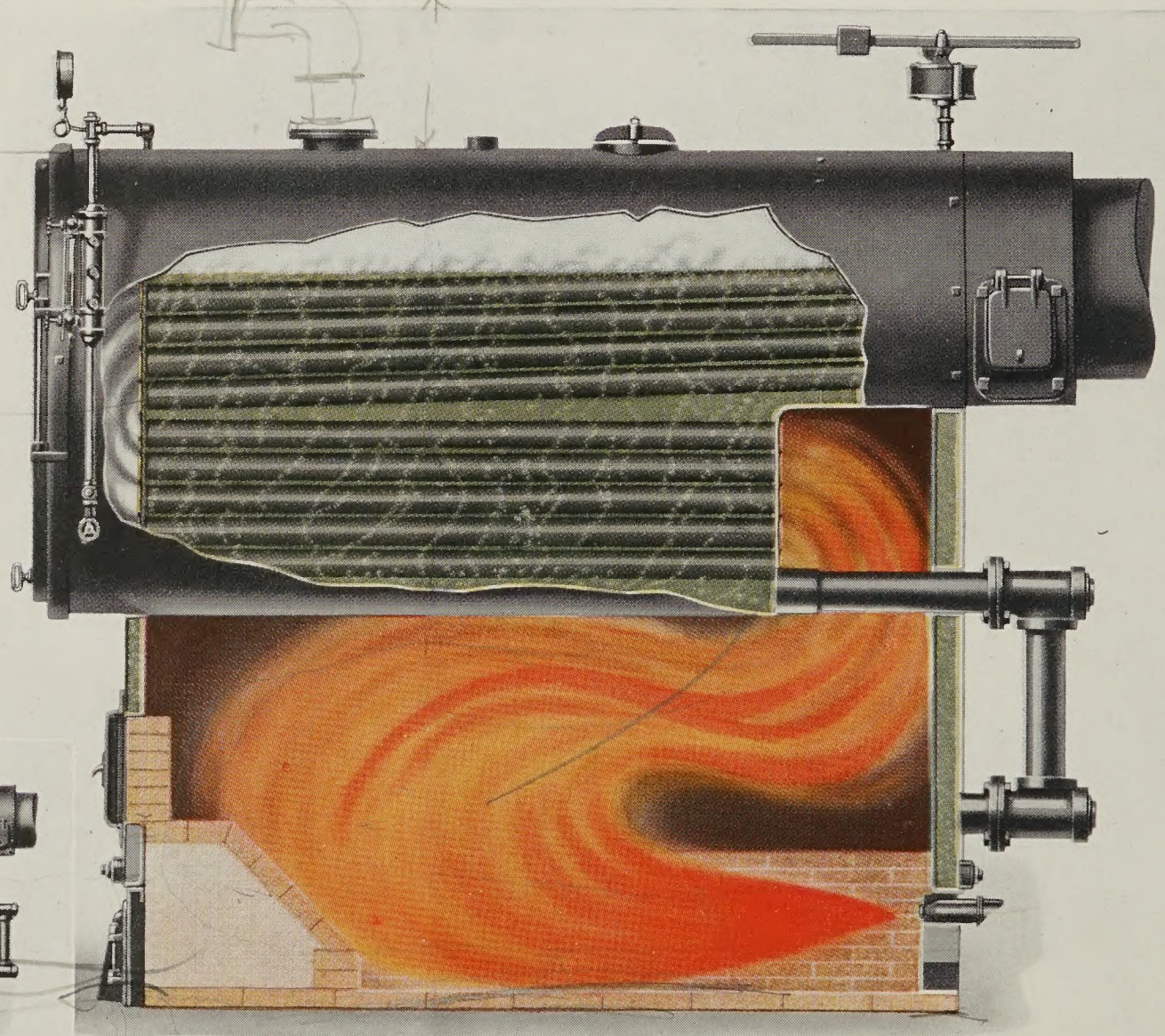
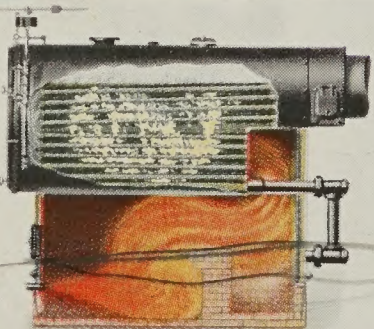


# The low water line boiler for mechanical firing

3-3  
Here is the low water line series Pacific Steel Boiler for mechanical firing. Use it with oil or gas or mechanical stokers. It gets full heating value out of the fuel, into the water, and up to the radiator, whatever the fuel. Uniquely suitable for oil burning, it can be used with any type of oil burning equipment. Adaptation is easy. The change requires but a few hours, if the operator wishes to transfer from oil to coal or vice versa. Plenty of space to completely atomize and properly consume oil, or vola-

tile gases from other fuels, is given by the extra large firebox that runs the full length of the shell. Products of combustion travel practically *twice the length of the boiler before entering the tubes* when fired from the rear and the length of the boiler when fired from the front. A large amount of direct heating surface is given in the firebox and still the tube heating surface is not sacrificed, for on leaving the firebox the hot gases must travel twice the length of boiler in passing through lower and upper banks of tubes.

The front fired Pacific Oil Burning Boiler



The rear-fired Pacific Oil Burning Boiler



# PACIFIC STEEL HEATING BOILERS

for mechanical firing with oil, gas, or stokers

A.S.M.E. STANDARDS ARE USED AS MINIMUMS—*Shell and Firebox*: Flange quality steel plate. *Steam Trimmings*: Consist of steam gauge with siphon and cock, water column with trimmings, and safety valve. *Firing Tools*: Steel tube cleaner. *Smoke Connection*: Horizontal at rear of shell. *Maximum Working Pressures*: Steam fifteen (15) lbs., water thirty (30) lbs. *Inspection*: All Pacific Boilers are built, inspected and tested under supervision of the Maryland Casualty Company.

## Steam Specifications

Catalog Number	*SHBI Rating	Code Word	Shipping Weight Approx. Lbs.	Asbestos To Cover, Sq. Ft.	Height Water Line Inches	One Boiler		Two Boilers		Grate Area Sq. Ft.	Heating Surface Sq. Ft.	Size Outlet Inches	Size Return Inches
						Diameter Stack Inches	Height Stack Feet	Diameter Stack Inches	Height Stack Feet				
8261	1650	Baby	1950	54	53 <sup>3</sup> / <sub>4</sub>	12	45				97	4	4
8262	1880	Back	2200	60	53 <sup>3</sup> / <sub>4</sub>	12	45				111	4	4
8263	2090	Bacon	2450	65	53 <sup>3</sup> / <sub>4</sub>	12	50				123	4	4
8264	2550	Badge	2750	76	53 <sup>3</sup> / <sub>4</sub>	12	55				150	4	2
8291	2840	Bag	3100	73	59 <sup>1</sup> / <sub>2</sub>	13	55	18	60		167	5	3
8292	3160	Bail	3300	79	59 <sup>1</sup> / <sub>2</sub>	13	55	18	60	N	186	5	3
8293	3470	Bairn	3500	85	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65		204	5	3
8294	3770	Bait	3700	91	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65	O	222	5	3
8295	4100	Bake	3900	97	59 <sup>1</sup> / <sub>2</sub>	13	60	18	65		241	5	3
8331	4400	Bald	4100	76	68 <sup>1</sup> / <sub>2</sub>	16	60	21	65	G	259	6	3
8332	5290	Ball	4600	89	68 <sup>1</sup> / <sub>2</sub>	16	65	21	70		311	6	3
8333	6170	Balm	5100	102	68 <sup>1</sup> / <sub>2</sub>	16	70	21	75	R	363	6	3
8334	7050	Ban	5600	115	68 <sup>1</sup> / <sub>2</sub>	16	70	21	75	A	415	6	3
8401	7920	Band	5900	123	68	17	70	23	80		466	6	3
8402	8430	Bane	6200	129	68	17	75	23	85	T	496	6	3
8471	9570	Banjo	7000	128	78	21	70	30	80	E	563	8	4
8472	10270	Bank	7400	136	78	21	75	30	85		604	8	4
8473	10980	Bar	7800	143	78	21	75	30	85	S	646	8	4
8474	11680	Barb	8200	151	78	21	80	30	90		687	8	4
8521	12650	Bard	9000	167	82	23	80	32	90	F	744	8	4
8522	14350	Bare	9800	183	82	23	85	32	95		844	8	4
8523	15200	Barge	10200	191	82	23	90	32	100	U	894	8	4
8600	17140	Bark	11300	176	90	29	85	40	95	R	1008	8	4
8601	19450	Baru	12200	194	90	29	90	40	100		1144	8	4
8602	20600	Baron	12600	203	90	29	90	40	100	N	1212	8	4
8603	22920	Base	13600	221	90	29	95	40	105	I	1348	8	4
8671	24940	Bash	15500	230	98 <sup>1</sup> / <sub>2</sub>	31	95	43	105		1467	8	4
8672	27660	Basie	16700	250	98 <sup>1</sup> / <sub>2</sub>	31	100	43	110	S	1627	10	5
8673	30380	Basil	17900	270	98 <sup>1</sup> / <sub>2</sub>	31	110	43	120		1786	10	5
8674	33090	Bask	19100	290	98 <sup>1</sup> / <sub>2</sub>	31	115	43	125	H	1945	10	5
8751	35240	Bass	20400	263	106	35	105	48	115	E	2073	10	5
8752	38720	Baste	21800	285	106	35	110	48	125		2278	12	6
8753	42190	Bat	23200	306	106	35	120	48	135	D	2482	12	6
8841	45490	Bath	27000	311	120	39	115	54	130		2676	12	6
8842	49980	Bay	29000	336	120	39	120	54	135		2940	12	6
8843	54470	Bayou	31000	361	120	39	125	54	140		3204	12	6

\*These ratings conform with the Steel Heating Boiler Institute Code for Rating Low Pressure Heating Boilers and are based on heating surface and combustion chamber volume. Any Pacific Boiler will carry its full rated load in equivalent direct radiation. All forms of load including piping and maximum hot water heating loads, must be reduced to equivalent direct radiation and included with the actual radiation load before selecting boiler sizes.

For hot water boilers figure ratings 60% greater than corresponding steam boiler ratings. On hot water boilers two outlets and two returns the same size as the corresponding steam boiler outlet are furnished.

Pacific Oil Fired Boilers are adaptable to either front or rear firing. Where a boiler is to be rear fired an observation opening in the rear water leg is recommended. It will be furnished, when specified, at a small additional cost.

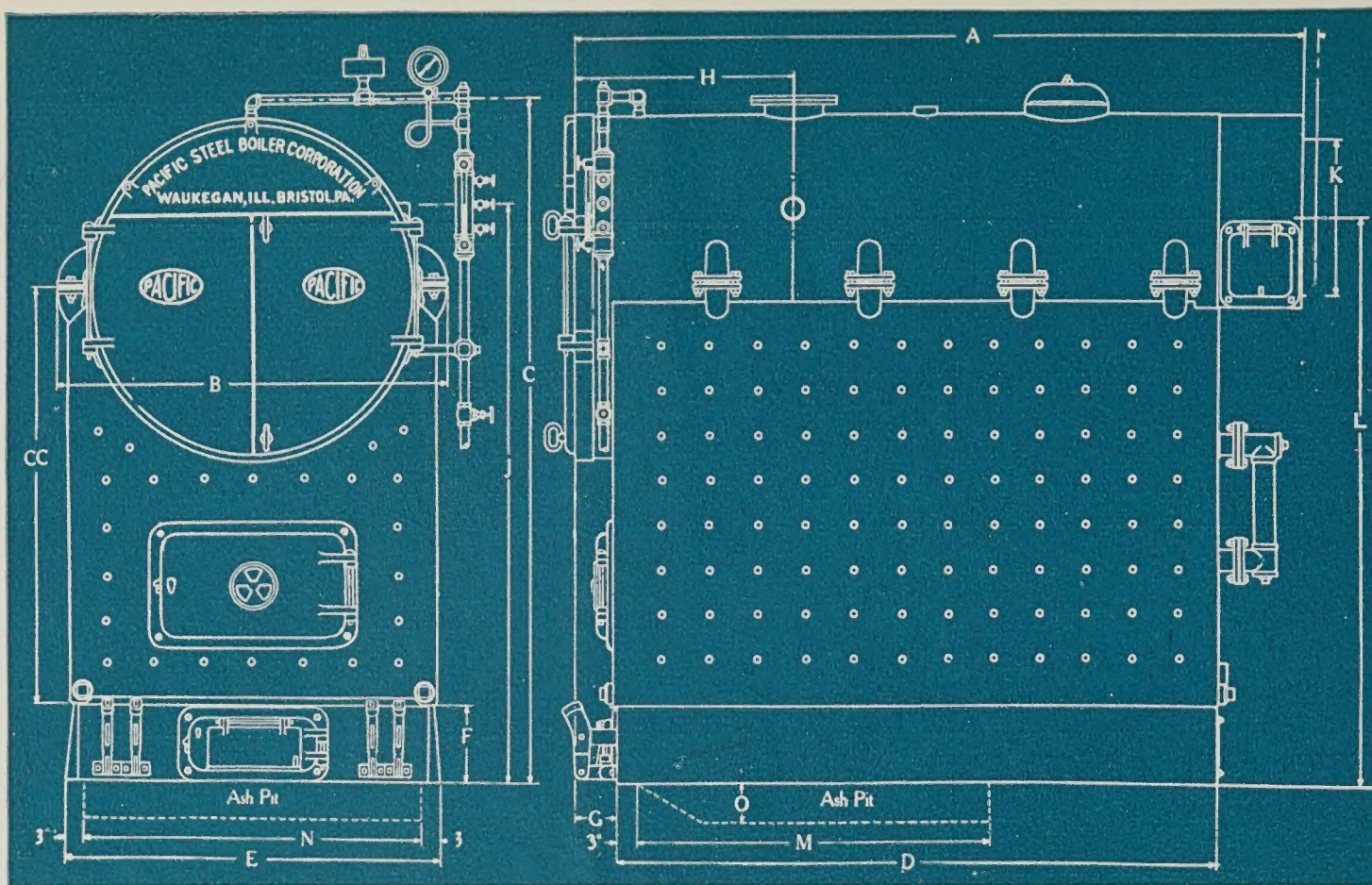
Boilers up to the No. 8523 are furnished with one fire door, larger boilers with two fire doors.

Johnson's Enterprise  
Patrol  
Tide  
Bay

Anderson's  
LaBarge  
Hay  
1612 Bay

Caldero  
Hudson  
National Oil





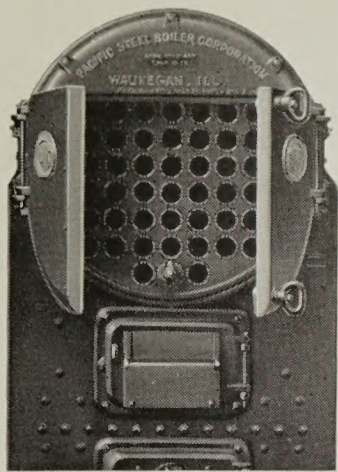
## Measurements of Pacific Low Water Line Boilers

Following measurements also apply to smokeless and Oil Fired Types

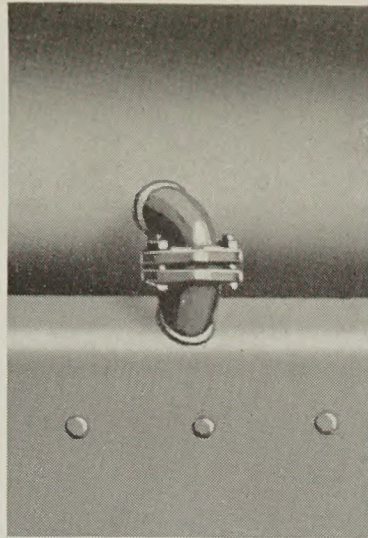
Catalog Size	Length Overall	Width Overall	Height Boiler	Height Firebox Overall	Length Base	Width Base	Height Base	Shell Overhang	Location Steam Supply	Location Returns	Height Water Line	Diam. Smoke Conn.	Height Center Smoke Conn.	Length for Ash Pit	Width for Ash Pit	Depth for Ash Pit
	A	B	C	CC	D	E	F	G	H		J	K	L	M	N	O
2261	52 $\frac{1}{2}$	34	64 $\frac{1}{2}$	35 $\frac{1}{2}$	45 $\frac{1}{4}$	35 $\frac{1}{4}$	12	3 $\frac{3}{4}$	26	Rear Corners	53 $\frac{3}{4}$	12	51 $\frac{1}{4}$	39 $\frac{1}{4}$	29 $\frac{1}{4}$	Not less than six inches
2262	58 $\frac{1}{2}$	34	64 $\frac{1}{2}$	35 $\frac{1}{2}$	51 $\frac{1}{4}$	35 $\frac{1}{4}$	12	3 $\frac{3}{4}$	32		53 $\frac{3}{4}$	12	51 $\frac{1}{4}$	45 $\frac{1}{4}$	29 $\frac{1}{4}$	
2263	64 $\frac{1}{2}$	34	64 $\frac{1}{2}$	35 $\frac{1}{2}$	57 $\frac{1}{4}$	35 $\frac{1}{4}$	12	3 $\frac{3}{4}$	38		53 $\frac{3}{4}$	12	51 $\frac{1}{4}$	51 $\frac{1}{4}$	29 $\frac{1}{4}$	
2264	79 $\frac{1}{2}$	34	65 $\frac{1}{2}$	35 $\frac{1}{2}$	64 $\frac{1}{2}$	30 $\frac{1}{2}$	12	6	31		53 $\frac{3}{4}$	12	51 $\frac{1}{2}$	47	24 $\frac{1}{2}$	
2291	74	39	72 $\frac{1}{4}$	42	52 $\frac{1}{2}$	36	12	13 $\frac{1}{2}$	27		59 $\frac{1}{2}$	14	60	37	30	
2292	80	39	72 $\frac{1}{4}$	42	58 $\frac{1}{2}$	36	12	13 $\frac{1}{2}$	28 $\frac{1}{2}$		59 $\frac{1}{2}$	14	60	41	30	
2293	86	39	72 $\frac{1}{4}$	42	64 $\frac{1}{2}$	36	12	13 $\frac{1}{2}$	30		59 $\frac{1}{2}$	14	60	45	30	
2294	92	39	72 $\frac{1}{4}$	42	70 $\frac{1}{2}$	36	12	13 $\frac{1}{2}$	31 $\frac{1}{2}$		59 $\frac{1}{2}$	14	60	45	30	
2295	98	39	72 $\frac{1}{4}$	42	76 $\frac{1}{2}$	36	12	13 $\frac{1}{2}$	33		59 $\frac{1}{2}$	14	60	49	30	
2331	83	44	83	46 $\frac{1}{2}$	58 $\frac{1}{2}$	40 $\frac{3}{4}$	12	15 $\frac{1}{2}$	31		68 $\frac{1}{2}$	17	66 $\frac{3}{4}$	45	34 $\frac{3}{4}$	
2332	95	44	83	46 $\frac{1}{2}$	70 $\frac{1}{2}$	40 $\frac{3}{4}$	12	15 $\frac{1}{2}$	34	On Center Line of Rear Water Leg	68 $\frac{1}{2}$	17	66 $\frac{3}{4}$	49	34 $\frac{3}{4}$	
2333	107	44	83	46 $\frac{1}{2}$	82 $\frac{1}{2}$	40 $\frac{3}{4}$	12	15 $\frac{1}{2}$	37		68 $\frac{1}{2}$	17	66 $\frac{3}{4}$	57	34 $\frac{3}{4}$	
2334	119	44	83	46 $\frac{1}{2}$	94 $\frac{1}{2}$	40 $\frac{3}{4}$	12	15 $\frac{1}{2}$	40		68 $\frac{1}{2}$	17	66 $\frac{3}{4}$	61	34 $\frac{3}{4}$	
2401	118	50	81 $\frac{1}{4}$	47	94 $\frac{1}{2}$	47	12	15 $\frac{1}{2}$	42 $\frac{1}{2}$		68	18	68 $\frac{3}{4}$	57	41	
2402	124	50	81 $\frac{1}{4}$	47	100 $\frac{1}{2}$	47	12	15 $\frac{1}{2}$	48 $\frac{1}{2}$		68	18	68 $\frac{3}{4}$	57	41	
2471	108	57 $\frac{1}{2}$	92 $\frac{3}{4}$	54	82 $\frac{1}{2}$	53 $\frac{3}{4}$	12	15 $\frac{1}{2}$	30 $\frac{1}{2}$		78	22	76	53	47 $\frac{3}{4}$	
2472	114	57 $\frac{1}{2}$	92 $\frac{3}{4}$	54	88 $\frac{1}{2}$	53 $\frac{3}{4}$	12	15 $\frac{1}{2}$	36 $\frac{1}{2}$		78	22	76	57	47 $\frac{3}{4}$	
2473	120	57 $\frac{1}{2}$	92 $\frac{3}{4}$	54	94 $\frac{1}{2}$	53 $\frac{3}{4}$	12	15 $\frac{1}{2}$	42 $\frac{1}{2}$		78	22	76	57	47 $\frac{3}{4}$	
2474	126	57 $\frac{1}{2}$	92 $\frac{3}{4}$	54	100 $\frac{1}{2}$	53 $\frac{3}{4}$	12	15 $\frac{1}{2}$	48 $\frac{1}{2}$		78	22	76	61	47 $\frac{3}{4}$	
2521	122	62 $\frac{1}{2}$	98 $\frac{3}{4}$	57	94 $\frac{1}{2}$	58 $\frac{3}{4}$	12	15 $\frac{1}{2}$	42 $\frac{1}{2}$		82	24	82	57	52 $\frac{3}{4}$	
2522	134	62 $\frac{1}{2}$	98 $\frac{3}{4}$	57	106 $\frac{1}{2}$	58 $\frac{3}{4}$	12	15 $\frac{1}{2}$	30 $\frac{1}{2}$	On Center Line of Rear Water Leg	82	24	82	61	52 $\frac{3}{4}$	
2523	140	62 $\frac{1}{2}$	98 $\frac{3}{4}$	57	112 $\frac{1}{2}$	58 $\frac{3}{4}$	12	15 $\frac{1}{2}$	36 $\frac{1}{2}$		82	24	82	65	52 $\frac{3}{4}$	
2600	124 $\frac{1}{2}$	70 $\frac{1}{2}$	108 $\frac{1}{2}$	61 $\frac{3}{4}$	94 $\frac{1}{2}$	67	12	17 $\frac{1}{2}$	44 $\frac{1}{2}$		90	30	89	61	61	
2601	136 $\frac{1}{2}$	70 $\frac{1}{2}$	108 $\frac{1}{2}$	61 $\frac{3}{4}$	106 $\frac{1}{2}$	67	12	17 $\frac{1}{2}$	32 $\frac{1}{2}$		90	30	89	65	61	
2602	142 $\frac{1}{2}$	70 $\frac{1}{2}$	108 $\frac{1}{2}$	61 $\frac{3}{4}$	112 $\frac{1}{2}$	67	12	17 $\frac{1}{2}$	38 $\frac{1}{2}$		90	30	89	65	61	
2603	154 $\frac{1}{2}$	70 $\frac{1}{2}$	108 $\frac{1}{2}$	61 $\frac{3}{4}$	124 $\frac{1}{2}$	67	12	17 $\frac{1}{2}$	50 $\frac{1}{2}$		90	30	89	69	61	
2671	143 $\frac{1}{2}$	78 $\frac{1}{2}$	120	68	112 $\frac{1}{2}$	74 $\frac{1}{2}$	15	17 $\frac{1}{2}$	38 $\frac{1}{2}$		98 $\frac{1}{2}$	32	99	65	68 $\frac{1}{2}$	
2672	155 $\frac{1}{2}$	78 $\frac{1}{2}$	120	68	124 $\frac{1}{2}$	74 $\frac{1}{2}$	15	17 $\frac{1}{2}$	50 $\frac{1}{2}$		98 $\frac{1}{2}$	32	99	69	68 $\frac{1}{2}$	
2673	167 $\frac{1}{2}$	78 $\frac{1}{2}$	120	68	136 $\frac{1}{2}$	74 $\frac{1}{2}$	15	17 $\frac{1}{2}$	38 $\frac{1}{2}$		98 $\frac{1}{2}$	32	99	73	68 $\frac{1}{2}$	
2674	179 $\frac{1}{2}$	78 $\frac{1}{2}$	120	68	148 $\frac{1}{2}$	74 $\frac{1}{2}$	15	17 $\frac{1}{2}$	50 $\frac{1}{2}$		98 $\frac{1}{2}$	32	99	77	68 $\frac{1}{2}$	
2751	157	86	128 $\frac{1}{2}$	72 $\frac{1}{2}$	124 $\frac{1}{2}$	83 $\frac{1}{2}$	15	17 $\frac{1}{2}$	50 $\frac{1}{2}$	On Center Line of Rear Water Leg	106	36	105 $\frac{1}{2}$	69	77 $\frac{1}{2}$	
2752	169	86	128 $\frac{1}{2}$	72 $\frac{1}{2}$	136 $\frac{1}{2}$	83 $\frac{1}{2}$	15	17 $\frac{1}{2}$	38 $\frac{1}{2}$		106	36	105 $\frac{1}{2}$	73	77 $\frac{1}{2}$	
2753	181	86	128 $\frac{1}{2}$	72 $\frac{1}{2}$	148 $\frac{1}{2}$	83 $\frac{1}{2}$	15	17 $\frac{1}{2}$	50 $\frac{1}{2}$		106	36	105 $\frac{1}{2}$	77	77 $\frac{1}{2}$	
8841	162 $\frac{1}{2}$	95 $\frac{1}{2}$	142 $\frac{1}{2}$	79	125 $\frac{1}{2}$	96 $\frac{1}{2}$	18	19 $\frac{1}{2}$	52 $\frac{1}{2}$		120	40	117			
8842	174 $\frac{1}{2}$	95 $\frac{1}{2}$	142 $\frac{1}{2}$	79	137 $\frac{1}{2}$	96 $\frac{1}{2}$	18	19 $\frac{1}{2}$	40 $\frac{1}{2}$		120	40	117			
8843	186 $\frac{1}{2}$	95 $\frac{1}{2}$	142 $\frac{1}{2}$	79	149 $\frac{1}{2}$	96 $\frac{1}{2}$	18	19 $\frac{1}{2}$	52 $\frac{1}{2}$		120	40	117			

NOTE—When specified 15" bases on all oil fired boilers up to the 8671 size; 18" bases on sizes from 8671 to 8841 and 24" bases on all larger sizes will be furnished. Top or side smoke outlets can be furnished at an additional cost. Front of ash pit is 3" from front of base.

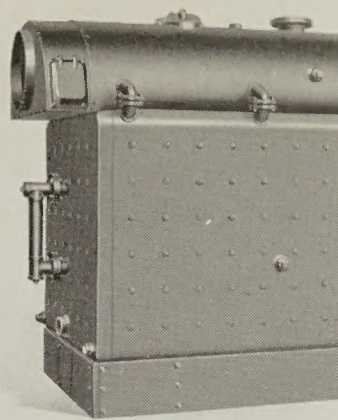




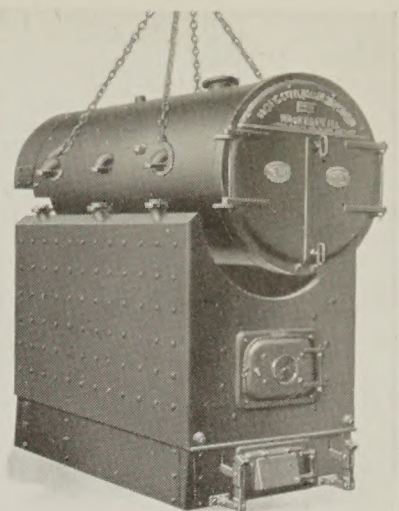
1. Front with full width flue doors open



2. Steel flanged connections between firebox and shell



3. Smoke connection and rear circulating connection



4. The firebox with shell disconnected

## CHECK THESE **PACIFIC** CONSTRUCTION superiorities . . .

If you tear down a Pacific Steel Boiler and examine each separate construction point and part, scarcely a single one but will disclose something that has been done a little better. The illustrations herewith show a few of these points of superiority.

**1** Tubes in Pacific Boilers are all cleaned through the front flue doors, a matter of but a few minutes work while the boiler is in operation. Cleanout openings are provided in the smoke hood and rear of base. Cleanout plugs are provided at each corner of the firebox, through which foreign matter is readily flushed out. The ease with which Pacific Boilers are cleaned means that they are readily kept up to a high state of efficiency, with a consequent saving in fuel.

**2** These photographs show how Pacific Boiler shells are connected to their fireboxes by flanged side

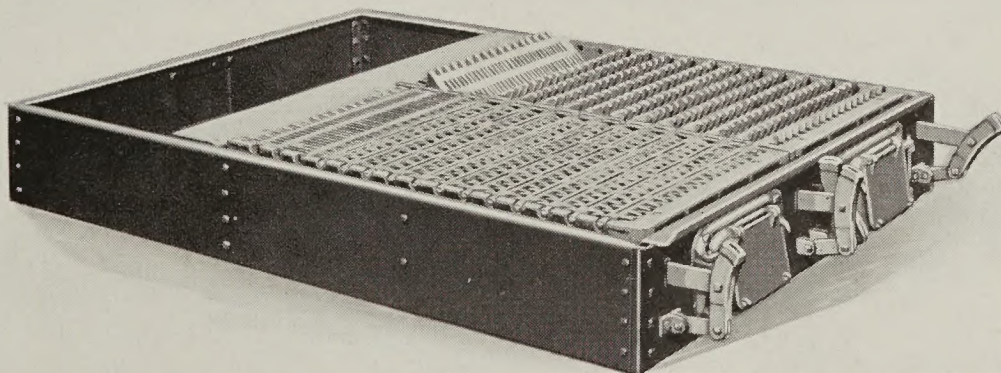
**3** connections and a rear circulating connection.

**4** This illustrates the shell disconnected from the firebox. The ease with which the flanges and the

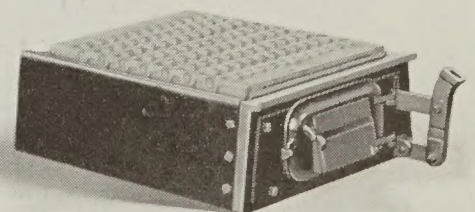
circulating pipe can be disconnected and the shell detached greatly facilitates movement of a Pacific boiler into a building. Pacific Boilers are shipped with firebox and shell connected, unless otherwise specified.

**5** The grates are assembled and crated in place in the base, reducing the cost of handling and

**6** erecting. The grates regularly furnished are the rocking, finger bar type. They are easy to operate, non-dumping, and have proved eminently satisfactory through long periods of service. Single section grates are furnished with boilers in the No. 2334 and No. 6334 sizes and smaller. Double section grates are furnished with boilers in No. 2401 and No. 6401 sizes and larger. The Smokeless series are regularly furnished with rear dumping grates. Grates designed for hard coal can be furnished on special order.



5. Double section base and grate with rear dump grates



6. Single section base and grate





## PACIFIC STEEL BOILER DIVISION

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Factories: Waukegan, Ill. - Bristol, Penn.

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DETROIT, MICHIGAN

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